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ABSTRACT

An organic thin-film transistor having a higher carrier-mobility, a method of fabricating the organic thin-film transistor and an organic thin-film device including the organic thin-film transistor are provided. In an organic thin-film transistor having an organic semiconductor layer, the organic semiconductor layer contains a fluorinated acene compound which is represented by a formula of $C_{4n+2}F_{2n+4}$, wherein n is an integer of 2 or greater. The fluorinated acene compound is preferably tetradecafluoropentacene or dodecafluoronaphthacene.